Remarks

Upon entry of the foregoing amendment, claims 1-11, 13-33, 37, and 38 are pending in the application, with claims 1, 19, 20, and 26 being the independent claims. Claims 1, 4, 19, 20, and 26 are sought to be amended. Claims 12 and 34-36 are sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Applicants reserve the right to prosecute similar or broader claims, with respect to the cancelled and amended claims, in the future.

These changes are believed to introduce no new matter, and their entry is respectfully requested.

It is requested that this response be entered after a final rejection because the amendments are only made for clarification, and do not substantively change the combinations being claimed. Thus, the same issues are presented for reconsideration, not requiring any further search by the Examiner. Also, Applicants believe this application should be in better condition for allowance or appeal after this response is entered.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

<u>Claims 26-27</u>

Claims 26-27 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,490,727 to Nazarathy *et al.* ("Nazarathy") in view of U.S. Patent

Application Publication No. 2002/0131413 to Tsao *et al.* ("Tsao").   Applicants

respectfully traverse.

The Examiner contends that the combination of Nazarathy and Tsao teaches

each of the elements of independent claim 26, as previously pending in the

Application. Applicants respectfully disagree and state that claim 26, as amended,

recites features that are not taught or suggested by the applied references. Claim 26,

as amended, recites a system for determining a priority classification of a burst at a

physical interface of a communications device, comprising:

> *a burst receiver for receiving the burst at the*
> ***physical interface****; and*
> *a classifier for detecting an identifier from the*
> *burst, wherein said identifier is matched to a priority*
> *indicator and **said priority indicator is postpended to the***
> ***burst** and **wherein said detecting occurs at the physical***
> ***interface prior to data link layer protocol processing***.

Applicants maintain that the combination of Nazarathy and Tsao does not

teach or suggest each and every feature of claim 26, as amended. For example, the

combination of Nazarathy and Tsao does not teach or suggest "*a classifier for*

detecting an identifier from the burst, wherein said identifier is matched to a priority

indicator and said priority indicator is postpended to the burst and wherein said

detecting occurs at the physical interface prior to data link layer protocol

processing," as recited in claim 26.

The Examiner, on page 6 of the Office Action, acknowledges that Nazarathy

does not teach or suggest the "the classifier for detecting an identifier, which is

matched to a priority indicator" feature of claim 26. The Examiner relies upon Tsao

to allegedly show this feature. Applicants respectfully disagree.

First, claim 26, as amended, recites a classifier for detecting an identifier from

the burst, wherein said identifier is matched to a priority indicator and said priority

indicator is postpended to the burst. In contrast, a classifier sub-module 114 of Tsao

retrieves packets from non-empty flow queues, determines a priority for each packet,

and places each packet in an appropriate priority queue.

Tsao teaches a method and an apparatus for scheduling packets for packet-

switched networks. A packet arrival module 106 of Tsao receives a packet, identifies

its flow, and places the packet in its corresponding flow queue. A classifier sub-

module 114 in a pre-order queuing module 108 retrieves the packet from the flow

queue, classifies the packet, and places the packet in an appropriate priority queue

(Tsao Paragraphs [0051]-[0054] and FIGS. 1 and 2). By contrast, claim 26 recites

that classifier for detecting an identifier from the burst, wherein said identifier is

matched to a priority indicator and said priority indicator is postpended to the burst.

Further, the Examiner, on page 8 of the Office Action regarding the previously

pending dependent claim 36, relies upon McConnell (U.S. Patent No. 6,108,307 to

McConnell *et al.* ("McConnell")) to allegedly show the features of postpending said

priority indicator to the burst after matching said identifier to said priority indicator.

Applicants respectfully disagree.

McConnell teaches frame relay priority queues. A frame processor 43

receives each message frame from a network. The frame processor reads DLCI bits

in an address field of the frame message and accesses a lookup table 47 to assign a

predetermined priority level for the frame message. Then the frame processor 43

places the received frame message into a queue according to its associated priority

level provided by the lookup table (McConnell Col. 5, Lines 44-63). In contrast, claim 26 recites that classifier for detecting an identifier from the burst, wherein said identifier is matched to a priority indicator and <u>said priority indicator is postpended to the burst</u>. McConnell discloses that the frame processor assigns a predetermined priority level to the message frame based on the DLCI bits of a message. However, McConnell does not teach or suggest the element of a priority indicator being postpended to the burst, as disclosed in claim 26. Claim 26 recites that the burst receiver and the classifier operate at the physical interface and prior to data link layer protocol processing. Moreover, since the frame processor of McConnell receives the message, detects the priority level of the message, and places the message in the appropriate queue, therefore, there is no need for postpending the message. Therefore, the assigning of a predetermined priority level by the frame processor of McConnell is not the same as the classifier of claim 26 for detecting an identifier from the burst, wherein said identifier is matched to a priority indicator and said priority indicator is postpended to the burst.

Second, claim 26 recites a classifier for detecting an identifier wherein the detecting occurs at <u>the physical interface prior to data link layer protocol processing.</u> In contrast, the teaching of Tsao is directed to layers above the physical interface and the data link layer. Paragraph [0053] of Tsao states:

> Classifier sub-module 114 may classify the packet based upon: a <u>source address</u>, a <u>destination address</u>, or other information such as a <u>service class</u> (e.g., constant bit rate), <u>transport control protocol port</u>, etc. Other information may also be used by the classifier sub-module 114 to classify the packet. (*emphasis added*)

The terms listed above refer to fields defined in known communications protocols. The known communication protocols that define the fields are used in layers above the physical interface and data link layer. As is known in the art, the first three layers of the OSI model include (1) Physical Layer, (2) Data Link Layer, and the (3) Network Layer. Further, in the OSI model, the layers are distinguished by the type of processing that occurs on an incoming data stream where processing at a lower layer occurs before processing at a next layer occurs. Thus, in contrast to claim 26 which is directed to a classifier in the physical interface prior to data link layer protocol processing, Tsao does not disclose that packets are classified by classifier sub-module 114 at the physical layer. Further, Tsao describes that packet arrival module 106 places a packet in one of queues 112_1 -112_n and classifier sub-module 114 retrieves the same packet (i.e. packets at the same layer) from one of queues 112_1-112_n (See Fig. 2, Paragraphs [0026], [0029], [0051]-[0053]). Thus, Tsao does not disclose classifying packets at the physical interface and prior to data link layer protocol processing. The classifier in Tsao is similar to prior art classifiers described in the Background section of the Specification in that it does not classify packets at the physical interface and prior to data link layer protocol processing.

Third, it would not have been obvious to one of ordinary skill in the art to use the teachings of Tsao to modify Nazarathy to achieve the essential features of claim 26. One of the purposes of the system disclosed in Nazarathy is to create a system that can function with many cable modem standards (See Col. 11, Lines 9-12). The system in Nazarathy does this by "'elongating the wire' from the burst receiver to the MAC layer." (See Col. 10, Lines 42-47). As noted in Nazarathy this "elongation"

actually creates additional delays in burst transmissions, which is viewed as

inconsequential in view of the benefits of the system (See Col. 20, Lines 9-24). Thus,

Nazarathy actually teaches away from reducing delays at the physical layer. Because

Nazarathy teaches away from reducing delays at the physical layer, one of ordinary

skill in the art would not have modified the system in Nazarathy with the upper layer

classifier in Tsao.

For at least the reasons set forth above, Applicants submit that independent

claim 26 is patentable over the combination of Nazarathy, Tsao, and McConnell.

Furthermore, claim 27, which depends from and further limits independent

claim 26, is also patentable over the combination of Nazarathy, Tsao, and McConnell

for at least the reasons set forth above with respect to independent claim 26, and

further in view of its own respective features.

Accordingly, Applicants respectfully request that the Examiner reconsider and

withdraw the rejection, and find claims 26-27 allowable over the applied references.

Claims 28-33

Claims 28-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over

Nazarathy in view of Tsao and further in view of U.S. Patent No.6,108,307 to

McConnell *et al.* ("McConnell"). Applicants respectfully traverse.

Claims 28-33, all of which depend from and further limit independent claim

26, are also patentable over the combination of Nazarathy, Tsao, and McConnell for

at least the reasons set forth above with respect to independent claim 26, and further

in view of their own respective features. Moreover, as discussed above with respect

to claim 26, McConnell is not used by the Examiner to show, and it does not teach or

suggest the "a classifier for detecting an identifier from the burst, wherein said

identifier is matched to a priority indicator and said priority indicator is postpended to

the burst and wherein said detecting occurs at the physical interface prior to data link

layer protocol processing," feature of claim 26, but rather teaches a conflicting

priority queuing approach. Specifically, McConnell determines priority levels for

packets based on the network connection (McConnell Abstract).

Accordingly, Applicants respectfully request that the Examiner reconsider and

withdraw the rejection, and find claims 28-33 allowable over the applied references.

Claims 1-11 and 13-25:

The Examiner notes that claims 1-25 are method claims corresponding to

system claims 26-33. The Examiner indicates that claims 1-25 are analyzed and

rejected as previously discussed with respect to claims 26-33. Applicants respectfully

traverse.

Independent claim 1, 19 and 20 each include the element of "postpending the

priority indicator to the burst." The arguments presented above relative to this

element apply here, as well. Thus, for at least the reasons described above with

respect to claim 26, claims 1, 19, and 20 are allowable over the combination of

Nazarathy, Tsao, and McConnell. Reconsideration and allowance of claims 1, 19,

and 20 is respectfully requested.

Further, claims 2-11 and 13-18, all of which depend from independent claim

1, are also patentable over the combination of Nazarathy, Tsao, and McConnell for at

least the reasons set forth above with respect to independent claim 1, and further in

view of their own respective features.

Furthermore, claims 21-25, all of which depend from independent claim 20, are also patentable over the combination of Nazarathy, Tsao, and McConnell for at least the reasons set forth above with respect to independent claim 20, and further in view of their own respective features.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection, and find claims 1-11 and 13-25 allowable over the applied references.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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